

## **REMARKS**

### **Claim Rejections**

Claims 101-107, and 111-125 are pending in the present case. Claims 107 and 109 are canceled without prejudice by the present amendment. Applicants note with appreciation that the Examiner has deemed prior rejections under 35 USC § 112 moot.

The Examiner has raised the a number of objections and rejections. For clarity, these objections and rejections are summarized below in the order in which they are addressed:

1. Claim 104 stands rejected under 35 USC § 112, first paragraph as allegedly failing to comply with the written description requirement;
2. Claim 104 stands rejected under 35 USC § 112, second paragraph as allegedly failing to particularly point out the subject matter which the applicant regards as his invention;
3. Claims 101-104, 107, 109, 111-112, 114-117, and 123-125 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by Lyamichev, et al., Science 260:778 (1993), hereinafter “Lyamichev;”
4. Claims 101, 112-115, 117, 118, and 123 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by Livak, PCR Methods and Applications vol. 4, pages 357-362, June 1995, hereinafter “Livak;”
5. Claims 101, 104-107, 114-119, and 122-125 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,380, 833 to Urdea, hereinafter “Urdea;”
6. Claims 101,107, 112, 114-116, 120, 121, and 123-125 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by Corey. J. Am. Chem. Soc., vol. 117, pages 9373-9374 (1995), hereinafter “Corey;”
7. Claims 101, 107, 109, 111-119, and 123 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 5,691,146 to Mayrand, hereinafter “Mayrand.”

**1. 35 USC § 112, first paragraph**

Claim 104 stands rejected under 35 USC § 112, first paragraph as allegedly failing to comply with the written description requirement. In particular, the Examiner asserts that the claim comprises new matter with respect to the claimed "kits." For business reasons and without acquiescing to the Examiner's arguments, Applicants herein amend Claim 104 to recite "a set of reagents". This amendment to the claims does not narrow the scope of the claims within the meaning of *Festo*<sup>1</sup> or related cases. The specification provides support for the claimed reagents, e.g., at page 171, lines 6-7, reciting "the invention provides reagents and methods to permit the detection and characterization of nucleic acid sequences." As such, the claim does not comprise new matter and Applicants respectfully request that this rejection be removed.

**2. 35 USC § 112, second paragraph**

Claim 104 stands rejected under 35 USC § 112, first paragraph as allegedly failing to particularly point out the subject matter which the applicant regards as his invention. In particular, the Examiner asserts that the claim lacks an antecedent basis for "kit." For business reasons and without acquiescing to the Examiner's arguments, as indicated above, Applicants herein have amended Claim 104 to recite "said set of reagents". The claim no longer recites a "kit," and this rejection is thus rendered moot. Applicants respectfully request that this rejection be removed.

**3-7. 35 U.S.C. § 102(b)**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d. 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As explained in more detail below, none of the references cited sets forth each and every element of the rejected claims.

**3. Lyamichev**

Claims 101-104, 107, 109, 111-112, 114-117, and 123-125 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by Lyamichev. These claims are drawn to a set of reagents comprising oligonucleotides that are complementary to defined regions of a target nucleic acid. The oligonucleotides, when associated with a target nucleic acid according to the recited regions of complementarity, form a nucleic acid cleavage structure cleavable by a cleavage agent. For business reasons and without acquiescing to the Examiner's arguments, and reserving the right to prosecute the original or similar claims in the future, Claim 101 is amended herein to recite set of reagents comprising a thermostable 5' nuclease lacking synthetic activity, and Claims 107 and 109 are canceled without prejudice. Support for reagents comprising 5' nucleases lacking synthetic activity is found throughout the specification. See, e.g., page 38 at line 18-21, and Example 2, starting at page 82, line 4.

Lyamichev fails to teach or suggest set of reagents comprising a thermostable 5' nuclease lacking synthetic activity. Lyamichev therefore fails to teach or suggest every element of Claims 101-104, 107, 111-112, 114-117, and 123-125 and does not anticipate these claims. As such, Applicants respectfully request that this rejection be removed.

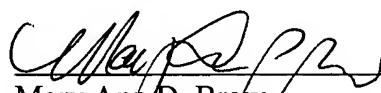
**4-7. Livak, Urdea, Corey, and Mayrand**

Claims 101, 104-107, and 111-125 stand rejected as being allegedly being anticipated under 35 U.S.C. § 102(b) by one or more of the Livak, Urdea, Corey, and Mayrand references. As described above, the presently claimed reagents comprise a thermostable 5' nuclease lacking synthetic activity. Livak, Urdea, Corey, and Mayrand each fail to teach reagents comprising a thermostable 5' nuclease lacking synthetic activity. As such, each of these references fails to teach or suggest every element of Claim 101 and dependent Claims 104-1107 and 111-125, and therefore none of these references anticipate any one of these claims. Applicants therefore respectfully request that these rejections be removed.

**CONCLUSION**

For the reasons set forth above, it is respectfully submitted that all rejections have been addressed and should be removed, and Applicants' claims should be passed to allowance. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourages the Examiner to call the undersigned collect at (608) 218-6900.

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